

REMARKS

Claims 1 through 8 are pending in the application.

Drawings

The drawings are objected to because different embodiments between the prior art and the invention should have the same reference numerals otherwise designated since they show different or modified features of the same type of structure. In order to obviate this drawing objection, the specification has been amended by introducing the statement that like reference numerals refer to like parts.

The drawings are objected to as failing to comply with 37 CFR 1.84 (p) (5) because they include the reference sign "28" not mentioned in the description. This reference sign has been deleted from Fig. 6 in the attached proposed drawing correction.

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention as specified in the claims. Therefore, the arrangement with at least two jointing stone members as claimed in claims 6 and 7 must be shown or the features canceled from the claims.

Applicant submits a new drawing Fig. 7 showing the features of claims 6 and 7. It is respectfully submitted that no new matter has been added as the configuration shown in drawing Fig. 7 is based on the illustration of Fig. 2 except that the jointing stone is interrupted so as to indicate that it is comprised of at least two jointing stone members 25a. It is also shown that the jointing stone members 25a together have a length that is greater than the length of the cutting edge but that each individual one has a length that is shorter than the cutting edge. A brief description has been added to page 6 of the specification.

REJECTIONS**Claim Rejections - 35 U.S.C. 112**

Claims 6-7 stand rejected under 35 U.S.C. 112, 2nd paragraph, as being indefinite.

The examiner states that features of claim 6 are firstly not illustrated in the drawing and that, moreover, the claim is indefinite because claim 1, from which claim 6 depends, sets forth the length of the jointing stone is greater than the cutting edge. The examiner questions how it is possible that the two stone members would comply with the requirement of claim 1.

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Claim 1 defines that the straight jointing stone 25 has an active (effective of operative) jointing area which is longer than the cutting edge to be jointed. The term active indicates that the jointing area must not extend across the entire length of the jointing stone but that instead the jointing stone can have, for example, two jointing areas that are spaced apart from one another. It is only important that during jointing of the cutting blade 3 the effective jointing areas have an active length that is greater than the length of the cutting edge 9.

Claim 6 only states that the jointing stone 25 is comprised of two or more jointing stone members spaced apart from one another. This is now illustrated in Fig. 7. In this configuration the jointing area that is effective during the jointing process of the cutting edge 9 is also longer than the cutting edge 9 itself (the jointing members combined have a jointing area that is longer than that of the cutting edge). For this reason, claim 6 does not contradict claim 1.

The same holds true also for the feature of claim 7. Even when the jointing stone members according to claim 7 each are shorter than the cutting edge 9, the effective jointing area of both jointing stone members is longer than the cutting edge 9.

Reconsideration and withdrawal of the rejection of claims 6 and 7 under 35 USC 112 is therefore respectfully requested.

Rejection under 35 U.S.C. 103

Claims 1, 2, 4-8 stand rejected under 35 U.S.C. 103(a) as being unpatentable over *Theien* in view of *Englert*.

Claim 3 stands rejected under 35 U.S.C. 103(a) as being unpatentable over *Theien* in view of *Englert* and *Mann*.

Claim 1 defines that the method concerns straight jointing stones, and this is the decisive feature. Only in regard to a straight jointing stone the stroke of the jointing stone in the longitudinal direction of the cutting blade 9 makes sense. A profiled jointing stone, because of its profile, cannot be moved in the longitudinal direction of the cutting blade.

The cited prior art reference *Theien* shows in Figs. 4 through 6 a jointing stone 40 having a profiled operative edge 40a. Because of this profiled edge, a stroke relative to the cutting element C1 during the jointing stroke does not make any sense. If indeed such

a stroke were carried out, the cutting edge E1 of the cutting element C1 no longer would have the desired profile. For this reason, only a radial advancement or feeding action of the profiled jointing stone 40 relative to the cutting element is carried out but no axial movement should take place. The jointing stone 40 is not a straight jointing stone but is a profiled jointing stone and the cutting edge E1 of the cutting element C1 must be jointed across its entire length with a single stone and the jointing stone must have a greater length than cutting element C1.

Figs. 5 and 6 illustrate a straight jointing stone 140 for jointing straight cutting edges of cutting elements C (Fig. 6). The jointing stone 140 is longer than the cutting edge. During the jointing process, the jointing device is fed radially relative to the axis of the spindle VR. A stroke movement of the jointing stone 140 in the axial direction of the spindle is not possible. The jointing stone 140 with the holder 41, 100 can be moved only radially by means of the crank 46; this is described in col. 12, lines 33ff.

This prior art reference shows thus a jointing process according to which the jointing stone 40 or 140, whether profiled or straight, is advanced only transversely to the axis of the spindle. No axial movement takes place,

Important features of the present method are however that, on the one hand, the effective or active jointing area is longer than the cutting edge to be jointed and, on the other hand, the stroke of the jointing stone 25 is significantly smaller than the cutting edge length.

The reference DE 39 27 230 shows straight jointing stones 13 mounted on a support 12 moveable along a guide 10, 11 in axial direction of the cutting blades. The jointing stones 13 are multiple times shorter than the cutting blade. The jointing stones 13, as illustrated in Fig. 1 of this prior art reference, are narrow and are positioned at a relatively large distance relative to one another. Therefore, the support 12 supporting the jointing stones 13 must perform in the axial direction of the cutting blade a large stroke in order to uniformly joint the cutting edges across their length. For this large stroke, a correspondingly long guide 11 for the support 12 is required. Moreover, the long stroke results in relatively long jointing times.

A similar procedure is described in col. 3, lines 24-38, of the *Thelen* reference. This

text portion also describes jointing of straight edges by jointing stones that are narrow in comparison to the cutting blade or edge to be jointed and must therefore be moved across the edge length.

The same jointing principle is also described in the instant specification on page 3, last paragraph, where the relevant disadvantages are also mentioned. The instant specification also describes (page 4, 2nd full paragraph) that it is known to employ a straight jointing edge having a length greater than the length of the cutting edge and being moved only radially (the same disclosure as that of *Theien* in regard to stone 140).

The cited prior art references therefore provide a person skilled in the art only with the teaching that for straight jointing either narrow (relative to the length of the cutting edge) jointing stones must be used in combination with a large stroke across the cutting edge or that long jointing stones having a length greater than the length of the cutting edge must be used in order to avoid moving the stones across the cutting edge.

Since the long jointing stones extend over a length greater than the length of the cutting edges, there is no necessity or incentive to move the long jointing stone across the cutting edge - the entire length of the cutting edge is covered by the long jointing stone and jointing takes place across the entire length of the cutting edge when the stone is in its operative position. There is no teaching or suggestion for a person skilled in the art to employ a stroke movement used in connection with **narrow** jointing stones, having a length that is clearly smaller than the length of the cutting edge, in combination with **long** jointing stones extending across the entire length of the cutting edge. The long jointing stones are specifically designed to be longer than the cutting blade for the very reason of **avoiding a stroke movement** known from narrow jointing stones because of the disadvantages associated therewith (wear, longer jointing duration; inconsistent jointing results because of wear).

The present invention differs from the cited prior art references in that the **long** jointing stones 25 are employed in connection with a **short stroke movement**. This is novel and unobvious as explained above. Moreover, the method of the invention has certain advantages. The nick or notch formation on the cutting blade that is caused by

long jointing stones that are only radially advanced toward the cutting edge is prevented. The wear on the jointing stones is minimal. As a result of the microscopically smooth cutting blades, higher surface quality of the workpiece machined with the cutting blade 3 jointed according to the invention is achieved.

The present invention as claimed in claim 1 is therefore not obvious in view of the prior art references and is believed to be allowable together with claims 2-8.

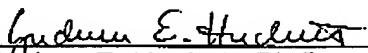
CONCLUSION

In view of the foregoing, it is submitted that this application is now in condition for allowance and such allowance is respectfully solicited.

Should the Examiner have any further objections or suggestions, the undersigned would appreciate a phone call or e-mail from the examiner to discuss appropriate amendments to place the application into condition for allowance.

Authorization is herewith given to charge any fees or any shortages in any fees required during prosecution of this application and not paid by other means to Patent and Trademark Office deposit account 50-1199.

Respectfully submitted on November 6, 2003,


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Encl.:

- amended drawing Fig. 6 (1 sheet);
- new Fig. 7 (1 sheet);
- time extension petition (1 sheet)